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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,159	11/03/2003	Robert T. Long SR.	1547520/69700	9560
26386 7590 07/24/2007 DAVIS, BROWN, KOEHN, SHORS & ROBERTS, P.C. THE FINANCIAL CENTER 666 WALNUT STREET SUITE 2500 DES MOINES, IA 50309-3993			EXAMINER GILBERT, WILLIAM V	
			ART UNIT 3635	PAPER NUMBER
			MAIL DATE 07/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/700,159	Applicant(s) LONG ET AL.	
	Examiner William V. Gilbert	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This is a Final Office Action. Applicant cancelled Claim 5.

Claims 1-4, 6 and 7 are pending below.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 3, 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Messenger et al. (U.S. Patent No. 6,701,683 B2).

Regarding Claim 1, Messenger discloses a method for constructing a concrete sandwich panel (Figure 1, element 2) comprising providing a first concrete panel (14) providing a second concrete panel (16), providing an insulation layer (4) between the panels and connecting the concrete layers and the insulation layer using a rigid sinusoidal element of fiber reinforced composite article (10; Page 4, lines 17-23). While the fiber-reinforced article is initially flexible, it is mixed

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with a "strong resin such as a thermoset" (Col. 6, lines 5-10) that would make the article rigid.

Regarding Claim 2, Messenger discloses a method for constructing a concrete sandwich panel (2), by providing an insulation layer (4), installing a rigid sinusoidal element of fiber reinforced composite (10), placing the insulation layer with the sinusoidal element on a first concrete layer (14), and placing a second concrete layer (16) on top of the insulation layer.

Regarding Claim 3, Messenger discloses a method for constructing a concrete panel comprising attaching rigid sinusoidal elements (10) to longitudinal reinforcing elements (6, 8; Page 4, lines 17-23) preparing a first concrete layer containing the longitudinal elements (14), placing an insulation layer between the sinusoidal elements (4) and placing a second concrete layer (16) over the insulation layer.

Regarding Claims 6 and 7, Messenger discloses a concrete wall panel without pre-stressed reinforcing rods comprising a first layer of concrete (14) a second layer of concrete (16) a layer of insulation material (4) between the layers of concrete, a rigid sinusoidal element (10) having a top and a bottom end (an inherent feature) the sinusoidal element further comprising a fiber reinforced composite article (Page 4, lines 17-23), the

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sinusoidal element having the top end located in the first layer of concrete (14) and extending through the insulation layer (4) and having a bottom end embedded in the second layer of concrete (16), and, per Claim 7, the sinusoidal element is not engaged with any pre-stressed reinforcing rods (no pre-stressing is present in the prior art of record).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger et al.

Regarding Claim 4, Messenger discloses a method for constructing a concrete sandwich panel (2) comprising providing a first concrete layer (14) with longitudinal reinforcing elements in place (6), installing an insulation layer (4) over the first concrete layer (14), and placing a second concrete

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layer (16) with longitudinal reinforcing elements (6) on the insulation layer (4). While Messenger discloses rigid sinusoidal elements (10) in the insulation layer (4), Messenger does not disclose pushing the sinusoidal elements into the insulation layer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to push the sinusoidal elements into the insulation layer because as one provides the first concrete panel (14) and places the insulation layer on the panel, the obvious method of installing the sinusoidal elements would be by pushing the elements into the insulation. See response to arguments below for explanation of the rejection.

Response to Arguments

3. The following addresses Applicants Remarks dated 22 May 2007.

Applicant's correction of the declaration obviates the objection and the Examiner withdraws the objection.

Applicant's cancellation of Claim 5 renders the objection moot and the Examiner withdraws the objection.

Applicant's amendment to the Specification obviates the objection and the Examiner withdraws the objection.

Applicant's amendment regarding the rejection under 35 U.S.C. §112 of Claims 6 and 7 obviate the rejection and the Examiner withdraws the rejection.

Applicant's arguments filed 22 May 2007 have been fully considered but they are not persuasive.

Regarding the Rejection of Claims 1-3, 6 and 7 under 35 U.S.C. §102(e), the Applicant argues that the fiber reinforcing material noted in the prior art of record (Messenger: U.S. Patent No. 6,701,683) is flexible and thus does not meet the limitations of the Claims. The Examiner respectfully disagrees. While the '683 reference does teach that the fiber reinforcing is flexible in its initial state, it is mixed with a "strong resin, such as a thermoset which [is] applied under a predetermined heat and pressure" (Col. 6, lines 5-10). As a result of the fiber composite/thermoset mixture, the component will become rigid.

Regarding the Rejection of Claim 4 under 35 U.S.C. §103, using the argument noted above under the 35 U.S.C. §102 rejection that the reinforcing is rigid, the strands can be

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pushed through the insulation layer. Second, Applicant argues that the order of installation is not obvious (Remarks: page 6, second full paragraph, lines 6-10). Examiner respectfully disagrees. The order of the steps in Claim 4 is obvious to one of ordinary skill in the art in that the prior art could be assembled in the following order:

1. providing the grid (Fig. 1: 6) and attaching the reinforcing (10) to the grid;
2. pouring the first slab (14);
3. installing an insulation layer (4) over the first concrete layer, which would be installed by pushing the sinusoidal elements (10) in to the insulation;
4. creating the second layer in the same manner provided in steps 1 and 2.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this

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action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William V. Gilbert whose telephone number is 571.272.9055. The examiner can normally be reached on Monday - Friday, 08:00 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571.272.6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WVG



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SUPERVISORY PATENT EXAMINER